

(FILE 'HOME' ENTERED AT 09:10:37 ON 26 JAN 2004)

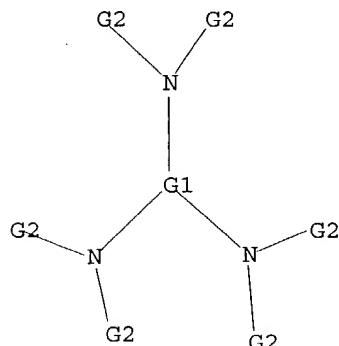
FILE 'REGISTRY' ENTERED AT 09:10:51 ON 26 JAN 2004

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



G1 Al,La,Y

G2 Cb,Ak,H,CF3,CCl3,CBr3

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 09:11:18 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 697 TO ITERATE

100.0% PROCESSED 697 ITERATIONS

10 ANSWERS

SEARCH TIME: 00.00.02

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 12357 TO 15523

PROJECTED ANSWERS: 11 TO 389

L2 10 SEA SSS SAM L1

=> fil caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.42

0.63

FILE 'CAPLUS' ENTERED AT 09:11:27 ON 26 JAN 2004

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FILE COVERS 1907 - 26 Jan 2004 VOL 140 ISS 5
FILE LAST UPDATED: 23 Jan 2004 (20040123/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> s l2

L3 11 L2

=> d 1-11 bib abs

L3 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:169460 CAPLUS
DN 134:363249
TI Electronic property and reactivity of (hydroperoxo)metal compounds
AU Nishida, Yuzo; Nishino, Satoshi
CS Department of Chemistry, Faculty of Science, Yamagata University,
Yamagata, 990-8560, Japan
SO Zeitschrift fuer Naturforschung, C: Journal of Biosciences (2001),
56(1/2), 144-153
CODEN: ZNCBDA; ISSN: 0939-5075
PB Verlag der Zeitschrift fuer Naturforschung
DT Journal
LA English
AB DFT calcs. were done for the (hydroperoxo)metal complexes with
.eta.1-coordination mode, where metal ions are Fe(III), Al(III), Cu(II)
and Zn(II). Results shows that (1) the electron d. at the two oxygen
atoms of the hydroperoxide ion is highly dependent on the angle O-O-H in
M-OOH species and the difference in electron d. between the two oxygen
atoms reaches a max. at the angle O-O-H = 180.degree., (2) total electron
d. at the two oxygen atoms of the peroxide ion increases by approach of
methane to the (hydroperoxo)metal species in the cases of Fe(III) and
Cu(II); on the other hand, significant decrease of the electron d. on
peroxide oxygen atoms was obsd. for the cases of Al(III) and Zn(II)
compds. These findings suggest that the (hydroperoxo)metal species acts
as an electrophile in the former cases (M = Fe(III), Cu(II)) and as a
nucleophile for the latter two compds. (M = Zn(II), Al(III)). The
electrophilicity obsd. for the Fe(III) and Cu(II) complexes is attributed
to the presence of unoccupied- or half-filled d-orbitals interacting with
the hydroperoxide ion. (3) Two oxygen atoms of the (hydroperoxo)-compds.
of Fe(III) and Cu(II) complexes exhibit quite different reactivity toward
the substrate, such as methane. When methane approaches the oxygen atom
which is coordinated to a metal ion, a strong decrease of electron d. at
the methane carbon atom occurs with concomitant increase of electron d. at
the peroxide oxygen atoms inducing its heterolytic O-O cleavage. When
methane approaches the terminal oxygen atom, an oxidative coupling
reaction occurs between peroxide ion and methane; at first a nucleophilic
attach by the terminal electron-rich oxygen atom occurs at the carbon atom
to induce C-O bond formation, and a subsequent oxidative electron transfer
proceeds from substrate to the metal-peroxide species yielding CH3-OOH,
CH3OH, or other oxidized products. These results clearly demonstrate that
the (hydroperoxo)-metal compd. itself is a rather stable compd., and
activation of the peroxide ion is induced by interaction with the
substrate, and the products obtained by the oxygenation reaction are
dependent on the chem. property of the substrate, redox property of a
metal ion, and stability of the compds. formed in the intermediate
process.

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:814248 CAPLUS
 DN 130:147806
 TI Synthesis and Structural Characterization of Some Monomeric Group 13 Amides
 AU Silverman, Joel S.; Carmalt, Claire J.; Cowley, Alan H.; Culp, Robert D.; Jones, Richard A.; McBurnett, Brian G.
 CS Department of Chemistry Biochemistry, The University of Texas at Austin, Austin, TX, 78712, USA
 SO Inorganic Chemistry (1999), 38(2), 296-300
 CODEN: INOCAJ; ISSN: 0020-1669
 PB American Chemical Society
 DT Journal
 LA English
 AB Three monomeric, base-free tris(primary amido) compds. $E[N(H)Mes^*]_3$ (1, E = Al; 2, E = Ga; 3, E = In; $Mes^* = 2,4,6$ -tri-tert-butylphenyl) were synthesized via the salt elimination reaction of $Mes^*N(H)Li$ with ECl_3 . The singly base-stabilized tris(primary amido) derivs., $[E\{N(H)Dipp\}_3(py)]$ (7, E = Al; 8, E = Ga; Dipp = 2,6-diisopropylphenyl), were prep'd. via the amine elimination reaction of H_2NDipp with $[E(NMe_2)_3]_2$. $[In\{N(H)Dipp\}_3(py)_2]$ (9), which features two coordinated bases, was prep'd. by treatment of $DippN(H)Li$ with $InCl_3$ followed by pyridine. The x-ray crystal structures of 3, 8, and 9 were det'd.
 RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1990:451468 CAPLUS
 DN 113:51468
 TI Preparation and crystal structure of tetraamidoaluminates of rubidium and cesium, $Rb[Al(NH_2)_4]$ and $Cs[Al(NH_2)_4]$
 AU Jacobs, H.; Jaenichen, K.
 CS Fachbereich Chem., Univ. Dortmund, Dortmund, D-4600/50, Germany
 SO Journal of the Less-Common Metals (1990), 159, 315-25
 CODEN: JCOMAH; ISSN: 0022-5088
 DT Journal
 LA German
 AB By the reaction of the metals with NH_3 in an autoclave, crystals of $RbAl(NH_2)_4$ dimorphs and $CsAl(NH_2)_4$ are obtained at 120-200.degree. and 150-200.degree. and NH_3 pressure of 0.8-1.2 kbar within 20 d of 1.2-6 kbar for 15 d, resp. cyano silver complex. X-ray single-crystal investigations gave isotopic structures; microcryst. $RbAl(NH_2)_4$ shows a monoclinic distortion. Single crystal of $RbAl(NH_2)_4$ and $CsAl(NH_2)_4$ are tetragonal, $P4/n$, $Z = 2$, whereas powd. $RbAl(NH_2)_4$ is monoclinic, $P2/c$, $Z = 4$. The structures contain isolated $Al(NH_2)_4$ --tetrahedra whereas metal and amide ions show common distorted cubic close-packing.

L3 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1977:188803 CAPLUS
 DN 86:188803
 TI Asymmetric reduction with chiral reagents from lithium aluminum hydride and (S)-(-)-N-(o-substituted benzyl)-.alpha.-phenylethylamines
 AU Yamaguchi, Shozo; Yasuhara, Fujiko; Kabuto, Kuninobu
 CS Coll. Gen. Educ., Tohoku Univ., Sendai, Japan
 SO Journal of Organic Chemistry (1977), 42(9), 1578-81
 CODEN: JOCEAH; ISSN: 0022-3263
 DT Journal
 LA English
 AB Asymmetric redn. of carbonyl compds. with chiral hydride reagents modified by (S)-(-)-N-RCH=NCHMePh (R = Ph, 2-MeC6H4, 2-Me2NC6H4, 2-MeOC6H4, 2-MeSC6H4, 2,4,6-Me3C6H2) in PhMe was exam'd. to clarify the role of the functional group in the amine ligands on the stereoselectivity. Of the functional groups tested, the Me2N group exerted the greatest effect on the asymmetric redn. of ketones, affording fairly good optical yields [PhCH(OH)Me, 43% ee (sic); PhCH(OH)Et, 52% ee, and PhCH(OH)Bu-t, 47% ee].

The presence of additives such as MeOCH₂CH₂OMe or Me₂NCH₂CH₂NMe₂ in the reaction mixt. caused a dramatic decrease in the stereoselectivity, while that of MeSCH₂CH₂SMe did not. Chelate ring formation in the chiral hydride reagent is one of the essential factors for the high stereoselectivities obsd.

L3 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1977:36705 CAPLUS
DN 86:36705
TI Investigation of the sodium/lanthanum/ammonia system
AU Jacobs, H.; Scholze, H.
CS Inst. Anorg. Chem., Tech. Hochsch. Aachen, Aachen, Fed. Rep. Ger.
SO Zeitschrift fuer Anorganische und Allgemeine Chemie (1976), 427(1), 8-16
CODEN: ZAACAB; ISSN: 0044-2313
DT Journal
LA German
AB Amides were prep'd. by the reaction of Na and La with ammonia. The ammonothermal synthesis was used starting with a molar ratio of the metals ranging from Na:La = 9:1 to 1:2 at NH₃ pressures from 3000 to 5000 atm and temps. from 250 to 500.degree.. Na₃La(NH₂)₆ was characterized by an x-ray single-crystal anal. The comp'd. has space group Fddd, with a 22.11 +- 0.01, b 11.15 +- 0.01, and c 7.375 +- 0.006 .ANG.; Z = 8. Beside this comp'd. and the binary amid another poorly crystd. comp'd. with a lower Na content may exist. The thermal degrdn. of the amides (Na:La = 0:1, and 1:1) led to 2 microcryst. ternary phases, an amide imide and an imide nitride; binary LaN and undecomposed NaNH₂ are the end products.

L3 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1975:557091 CAPLUS
DN 83:157091
TI Complex compounds of hydrazine with samarium and yttrium
AU Aliev, R. Ya.; Musaev, D. B.
CS Azerb. Gos. Pedagog. Inst. im. Lenina, Baku, USSR
SO Doklady - Akademiya Nauk Azerbaidzhanskoi SSR (1975), 31(3), 27-30
CODEN: DAZRA7; ISSN: 0002-3078
DT Journal
LA Russian
AB YCl₃ reacted with N₂H₄.2HCl in H₂O to give Y(N₂H₄)₃Cl₃.3H₂O. [Y(N₂H₄)₆]₂(SO₄).3.4H₂O, [Y(N₂H₄)₆](ClO₄).3.2H₂O, [Sm(N₂H₄)₃Cl₃].2H₂O, and [Sm(N₂H₄)₆](ClO₄).3.4H₂O were also prep'd.

L3 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1975:38041 CAPLUS
DN 82:38041
TI Amidometallates of lanthanum and gadolinium and the reaction of lanthanum, gadolinium, and scandium with ammonia
AU Linde, G.; Juza, R.
CS Inst. Anorg. Chem., Christian-Albrechts-Univ., Kiel, Fed. Rep. Ger.
SO Zeitschrift fuer Anorganische und Allgemeine Chemie (1974), 409(2), 191-8
CODEN: ZAACAB; ISSN: 0044-2313
DT Journal
LA English
AB Na₃[La(NH₂)₆], Na₃[Gd(NH₂)₆], and Na[Gd(NH₂)₄] were prep'd. by reaction of Na and La or Gd with NH₃ in a high-temp. autoclave, whereas the analogous Sc compds. were not obtained. Corresponding expts. with NH₄I gave only La(NH₂)₃, GdN, and ScH₂. Na₃[La(NH₂)₆] and Na₃-[Gd(NH₂)₆] are isotypic with Na₃[Y(NH₂)₆], and Na[Gd(NH₂)₄] is isotypic with Na[Y(NH₂)₄] as shown by x-ray studies. The lattice parameters are reported. The thermal behavior of the prep'd. compds. were characterized by DTA and tensimetry.

L3 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1975:36825 CAPLUS
DN 82:36825
TI IR spectra of amides and imides of divalent and trivalent metals

AU Linde, G.; Juza, R.
CS Inst. Anorg. Chem., Christian-Albrechts-Univ., Kiel, Fed. Rep. Ger.
SO Zeitschrift fuer Anorganische und Allgemeine Chemie (1974), 409(2),
199-214
CODEN: ZAACAB; ISSN: 0044-2313

DT Journal QD1.24
LA German
AB The ir spectra of $M(NH_2)_2$ and $M(NH)$ ($M = Be, Mg, Ca, Sr, \text{ and } Ba$), $M(NH_2)_3$ ($M = La, Y, \text{ and } Yb$), $Na[M(NH_2)_4]$ ($M = Gd, Y, Yb$), and $Na_3[M(NH_2)_6]$ ($M = La, Gd, Y, \text{ and } Yb$) are reported. Solid solns. prepd. by thermal decompn. of amides were studied. The valence force const. of the NH bond increases with decreasing radius and increasing elec. charge of the cation, depending on the polarizing action of the cation. In the amidometallates the Na^+ ions degrade the force const. and the polarizing action of the central ion.

L3 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1974:544844 CAPLUS
DN 81:144844
TI Reaction of some yttrium salts with hydrazine
AU Aliev, R. Ya.; Kuliev, A. D.
CS Azerb. Pedagog. Inst. im. Lenina, Baku, USSR
SO Zhurnal Obshchei Khimii (1974), 44(9), 1852-4
CODEN: ZOKHA4; ISSN: 0044-460X

DT Journal
LA Russian
AB Satd. $N_2H_4 \cdot HCl$ solns. were added to YCl_3 solns. in a 3:1 molar ratio to give $[Y(N_2H_4)_3Cl_3] \cdot 3H_2O$. $[Y(N_2H_4)_3X_3] \cdot nH_2O$ ($x = Br^-, I^-, F^-, NO_3^-$), $[Y(N_2H_4)_6] \cdot 2(SO_4) \cdot 3 \cdot 4H_2O$, and $[Y(N_2H_4)_6] \cdot (ClO_4) \cdot 3 \cdot 2H_2O$ were also prepd.

L3 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1973:436004 CAPLUS
DN 79:36004
TI Structure of sodium, potassium, or cesium tetraamidoaluminate. Structure of sodium tetraamidogallate
AU Molinie, Philippe; Brec, Raymond; Rouxel, Jean; Herpin, Paulette
CS Lab. Chim. Miner. A, U.E.R. Chim., Nantes, Fr.
SO Acta Crystallographica, Section B: Structural Crystallography and Crystal Chemistry (1973), 29(5), 925-34
CODEN: ACBCAR; ISSN: 0567-7408

DT Journal
LA French
AB Addnl. data considered in abstracting and indexing are available from a source cited in the original document. Alkali metal tetraamidoaluminate and tetraamidogallate hygroscopic crystals are prepd. by ammonothermal synthesis. In the series with formula $MA(NH_2)_4$, all the structures are built up of $Al(NH_2)_4^-$ tetrahedra and M^+ ions ($M = Na, K, Cs$). The tetraamidogallate $NaGa(NH_2)_4$ is isotypic with $NaAl(NH_2)_4$. The refinement of the positions of the H atoms in these structures was carried out: it led to acceptable results for the N-H lengths and H-N-H angles.

L3 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1968:510926 CAPLUS
DN 69:110926
TI Preparation and x-ray crystallographic study of the potassium, rubidium, and cesium amidoaluminates. Family of alkaline aminoaluminates $MA(NH_2)_4$
AU Brec, Raymond; Rouxel, Jean
CS Lab. Chim. Miner. A, Fac. Sci. Nantes, Nantes, Fr.
SO Bulletin de la Societe Chimique de France (1968), (7), 2721-6
CODEN: BSCFAS; ISSN: 0037-8968

DT Journal
LA French
AB The title compds. were prepd. by the interaction of excess Al with the alkali metals dissolved in liq. NH_3 . The operation was carried out in a

sealed T-shaped Pyrex glass tube at room temp. Then, the excess Al was removed by tilting the tube, and the excess NH₃ by thermal gradient evapn. X-ray crystallographic data of these compds. were obtained. KAl(NH₂)₄ is orthorhombic at room temp. (.beta.-form) and hexagonal at <0.degree. (.alpha.-form); the lattice parameters of the .beta.-form are a 11.37, b 8.85, c 6.146 A., the space group is Pnma, the d. (exptl.) 1.40, and Z = 4. CsAl(NH₂)₄ is tetragonal with a 7.57, and c 5.36 A.; the d. (exptl.) is 2.20, and Z = 2. RbAl(NH₂)₄ is probably orthorhombic. These amidoaluminates are converted on heating into imidoaluminates.

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(FILE 'HOME' ENTERED AT 09:10:37 ON 26 JAN 2004)

FILE 'REGISTRY' ENTERED AT 09:10:51 ON 26 JAN 2004

L1 STRUCTURE UPLOADED

L2 10 S L1

FILE 'CAPLUS' ENTERED AT 09:11:27 ON 26 JAN 2004

L3 11 S L2

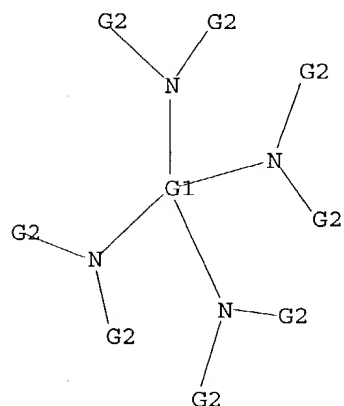
FILE 'REGISTRY' ENTERED AT 09:14:32 ON 26 JAN 2004

L4 STRUCTURE UPLOADED

=> d l4

L4 HAS NO ANSWERS

L4 STR



G1 Hf,Ti,Zr

G2 Cb,Ak,H,CF3,CCl3,CBr3

Structure attributes must be viewed using STN Express query preparation.

=> s l4

SAMPLE SEARCH INITIATED 09:20:08 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 431 TO ITERATE

100.0% PROCESSED 431 ITERATIONS

9 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 7375 TO 9865

PROJECTED ANSWERS: 9 TO 360

L5 9 SEA SSS SAM L4

=> fil caplus

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
4.20	34.97

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
0.00	-7.62

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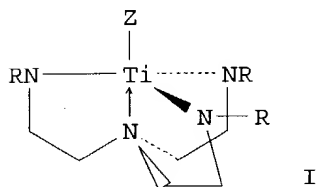
FILE COVERS 1907 - 26 Jan 2004 VOL 140 ISS 5
FILE LAST UPDATED: 23 Jan 2004 (20040123/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 15
L6 6 L5

=> d 1-6 bib abs

L6 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:80096 CAPLUS
DN 126:74989
TI Molecular Structures for Azatitanatranes
AU Rioux, Frank; Schmidt, Michael W.; Gordon, Mark S.
CS Department of Chemistry and Ames Laboratory-USDOE, Iowa State University, Ames, IA, 50011, USA
SO Organometallics (1997), 16(2), 158-162
CODEN: ORGND7; ISSN: 0276-7333
PB American Chemical Society
DT Journal
LA English
GI



AB Ab initio geometry optimizations for azatitanatranes I where Z = CH₃, NH₂, OH, F, and NMe₂ and R = H and CH₃, were performed using a triple- ζ basis set for Ti and a 6-31G(d) basis set for all other atoms. An anal. of the transannular Ti-N interaction indicates that it is significantly stronger than that found in the analogous azasilatranes. There is reasonable agreement between the calcd. structure and the available x-ray data for Z = NMe₂ and R = CH₃. Of special significance in this calcn. is the fact that theory correctly predicts that the axial Ti-N bond is shorter than the equatorial Ti-N bonds.

L6 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1988:529198 CAPLUS

DN 109:129198
 TI Transition metal activated organic compounds. 26. Higher thermostability and selectivity of Koebrich reagents by transmetalation
 AU Kauffmann, Thomas; Fobker, Rolf; Wensing, Michael
 CS Org.-Chem. Inst., Univ. Muenster, Muenster, D-4400, Fed. Rep. Ger.
 SO Angewandte Chemie (1988), 100(7), 1005-6
 CODEN: ANCEAD; ISSN: 0044-8249
 DT Journal
 LA German
 OS CASREACT 109:129198
 AB Treating title reagents X_2CHLi [$X = Cl$ (I), Br, iodo] or Cl_3CLi with transition-metal complexes, e.g., $Ti(OCHMe_2)_4$, gave transmetalated products $X_2CHTi(OCHMe_2)_4Li$ (same X) or $CCl_3Ti(OCHMe_2)_4Li$, which had greater thermal stability than the starting Koebrich reagents. $Cl_2CHTi(OCHMe_2)_4Li$ (II), $(Cl_2CH)_3MnLi$ (III), or $Cl_2CHTi(OCHMe_2)_3$ (IV) showed high aldehyde selectivity in reaction with PhCHO-PhCOMe or 1-heptanal-Et₂CO mixts., giving 46-81% HOCH₂CHCl₂ ($R = Ph$, n-hexyl) and 0-4% HOCH₂CHCl₂ ($R_1 = Ph$, $R_2 = Me$; $R_1 = R_2 = Et$). I was much less selective. Treating MeCOCH₂NMe₂ with II-IV gave 66-71% $Cl_2CHCMe(OH)CH_2NMe_2$.

L6 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1988:160313 CAPLUS
 DN 108:160313
 TI Some oxocation complexes of N,N'-dimethylhydrazine
 AU Agarwal, R. K.; Gupta, S. K.; Kapur, Veena; Srivastava, A. K.
 CS Dep. Chem., Lajpat Rai Post Grad. Coll., Sahibabad, 201005, India
 SO Proceedings of the National Academy of Sciences, India, Section A: Physical Sciences (1987), 57(1), 20-4
 CODEN: PAIAA3; ISSN: 0369-8203
 DT Journal
 LA English
 AB $MON(Me_2hy)_mX_2$ ($M = V, Zr$ or U ; $n = 1$ or 2 ; $m = 2$ or 4 ; $X = Cl, Br, I, NCS, NO_3, ClO_4, SO_4$ or OAc ; $Me_2hy = MeNHNHMe$) were prepd. and characterized by elemental analyses, magnetic susceptibility, electronic and IR spectra. The vanadyl complexes exhibit subnormal magnetic moments (1.27-1.47 μ_B) possibly because of exchange interaction between vanadyl ions.

L6 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1982:192324 CAPLUS
 DN 96:192324
 TI Complexes of hydrazine and substituted hydrazines with some oxocations
 AU Srivastava, Anant K.; Agarwal, Ram K.; Srivastava, Mahesh; Kapur, Veena; Sharma, Sunita; Jain, Prakash C.
 CS Dep. Chem., Meerut Coll., Meerut, 250001, India
 SO Transition Metal Chemistry (Dordrecht, Netherlands) (1982), 7(1), 41-4
 CODEN: TMCHDN; ISSN: 0340-4285
 DT Journal
 LA English
 AB Several new polymeric complexes of general compn. $MONL_4X_2$ ($M = V, Zr$ and U ; $n = 1$ or 2 ; $X = Cl, Br, I, NO_3$ and NCS ; $L = N_2H_4, PhNHNH_2$ and Me_2NNH_2) were synthesized and characterized by elemental anal., DTA and by magnetic measurements, electronic and IR spectra. The vanadyl(IV) complexes exhibit subnormal magnetic moments (1.26-1.36 μ_B) possibly because of exchange interaction between V(IV) ions. The thermal stability of hydrazine complexes fall in the order: $Cl > Br > NCS > I$. The M-N bond strength, as revealed by $\nu(M-N)$, decreases as: $Me_2NNH_2 > N_2H_4 > PhNHNH_2$.

L6 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1975:105791 CAPLUS
 DN 82:105791
 TI Chemistry of N-aryl substituted metal amides. III. N,N-Disubstituted zirconium amides

AU Froehlich, Hans O.; Keiser, Stephan
 CS Sekt. Chem., Friedrich-Schiller-Univ., Jena, Ger. Dem. Rep.
 SO Zeitschrift fuer Chemie (1974), 14(12), 486
 CODEN: ZECEAL; ISSN: 0044-2402
 DT Journal
 LA German
 AB The reaction of KNPh₂.3diox (diox = dioxane) with ZrCl₄.2THF in THF at molar ratio 4:1 and 3:1 gave Zr(NPh₂)₄.diox. The reaction of ZrCl₄.2THF with KPhNCH₂CH₂NPhK.2diox at molar ratio 1:2 and 1:1 gave solvates of Zr(PhNCH₂CH₂NPh)₂ and ZrCl₂(PhNCH₂CH₂NPh), resp.

L6 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1962:13065 CAPLUS
 DN 56:13065
 OREF 56:2464g-i,2465a
 TI Amino derivatives of zirconium tetrabromide
 AU Prasad, I. Sarju; Sahney, Kanta
 CS Hindu Univ., Banaras, India
 SO Proceedings of the National Academy of Sciences, India (1960), Sect. A 29, 307-9
 CODEN: NAIPAQ; ISSN: 0369-3236
 DT Journal
 LA Unavailable
 AB cf. Fowles and Pollard, CA 48, 5011c. -Amine complexes of Zr(IV) were prepd. in EtOAc soln. from the amine and ZrBr₄. The following Zr(amine)₄Br₄ were prepd. (amine and color of complex given): aniline, gray; o-anisidine, ash color; p-anisidine, gray; o-phenetidine, brown; benzylamine, white; o-, m-, and p-toluidine, ash color, yellow, and amethyst, resp. Similarly, the following Zr(amine)₂-Br₄ were prepd. (same data): .alpha.-naphthylamine, violet; .beta.-naphthylamine, ash color; o-tolidine, gray; o-dianisidine, gray; phenylhydrazine, brown; benzidine, gray; o- and p-phenylenediamine, brown and gray, resp. Almost all were insol. in EtOAc, Et₂O, C₆H₆ and sparingly sol. in alc. The phenylhydrazine and benzylamine compds. were sparingly sol. in C₆H₆. They were sol. in dil. acids, but decompd. in NaOH soln. The monoamine compds. hydrolyzed readily, but the diamine derivs. hydrolyzed slowly. All were stable up to 150.degree., but decompd. without melting at higher temp. [except the benzylamine (m. 214.degree.) and phenylhydrazine (m. 180.degree.) derivs.].

=>

=> d his

(FILE 'HOME' ENTERED AT 09:10:37 ON 26 JAN 2004)

FILE 'REGISTRY' ENTERED AT 09:10:51 ON 26 JAN 2004

L1 STRUCTURE UPLOADED

L2 10 S L1

FILE 'CAPLUS' ENTERED AT 09:11:27 ON 26 JAN 2004

L3 11 S L2

FILE 'REGISTRY' ENTERED AT 09:14:32 ON 26 JAN 2004

L4 STRUCTURE UPLOADED

L5 9 S L4

FILE 'CAPLUS' ENTERED AT 09:20:14 ON 26 JAN 2004

L6 6 S L5

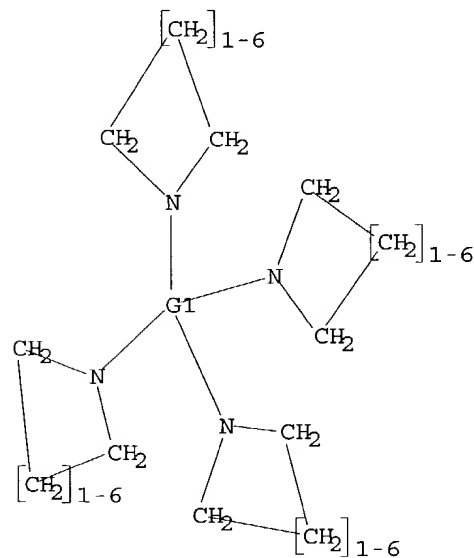
FILE 'REGISTRY' ENTERED AT 09:29:16 ON 26 JAN 2004

L7 STRUCTURE UPLOADED

=> d 17

L7 HAS NO ANSWERS

L7 STR



G1 Hf,Ti,Zr

G2 Cb,Ak,H,CF3,CCl3,CBr3

Structure attributes must be viewed using STN Express query preparation.

=> s 17

SAMPLE SEARCH INITIATED 09:29:48 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 31 TO ITERATE

100.0% PROCESSED 31 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 286 TO 954

PROJECTED ANSWERS:

0 TO

0

L8

0 SEA SSS SAM L7

=>

(FILE 'HOME' ENTERED AT 09:10:37 ON 26 JAN 2004)

FILE 'REGISTRY' ENTERED AT 09:10:51 ON 26 JAN 2004

L1 STRUCTURE UPLOADED

L2 10 S L1

FILE 'CAPLUS' ENTERED AT 09:11:27 ON 26 JAN 2004

L3 11 S L2

FILE 'REGISTRY' ENTERED AT 09:14:32 ON 26 JAN 2004

L4 STRUCTURE UPLOADED

L5 9 S L4

FILE 'CAPLUS' ENTERED AT 09:20:14 ON 26 JAN 2004

L6 6 S L5

FILE 'REGISTRY' ENTERED AT 09:29:16 ON 26 JAN 2004

L7 STRUCTURE UPLOADED

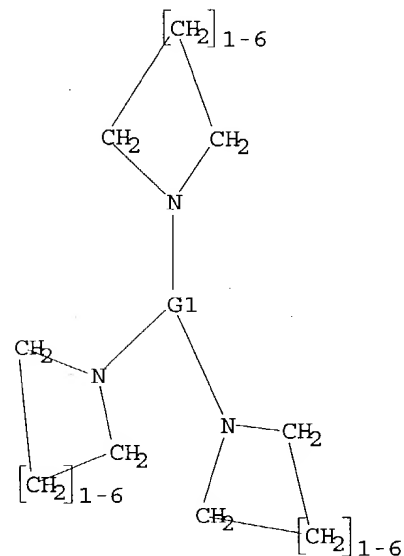
L8 0 S L7

L9 STRUCTURE UPLOADED

=> d 19

L9 HAS NO ANSWERS

L9 STR



G1 Al,La,Y

G2 Cb,Ak,H,CF3,CCl3,CBr3

Structure attributes must be viewed using STN Express query preparation.

=> s 19

SAMPLE SEARCH INITIATED 09:32:47 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 60 TO ITERATE

100.0% PROCESSED 60 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.02

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 736 TO 1664
PROJECTED ANSWERS: 0 TO 0

L10 0 SEA SSS SAM L9

=> s l9 full

FULL SEARCH INITIATED 09:33:02 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1121 TO ITERATE

100.0% PROCESSED 1121 ITERATIONS 14 ANSWERS
SEARCH TIME: 00.00.01

L11 14 SEA SSS FUL L9

=> fil caplus

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FULL ESTIMATED COST	157.94	214.73

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-11.78

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FILE COVERS 1907 - 26 Jan 2004 VOL 140 ISS 5
FILE LAST UPDATED: 23 Jan 2004 (20040123/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l11

L12 12 L11

=> d 1-12 bib abs

L12 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:235302 CAPLUS
DN 139:158939
TI Synthesis of amino- and amido-aluminium derivatives and investigation of their dynamics in solution
AU Passarelli, Vincenzo; Carta, Giovanni; Rossetto, Gilberto; Zanella, Pierino
CS ICIS, CNR, Padua, Italy
SO Dalton Transactions (2003), (7), 1284-1291
CODEN: DTARAF; ISSN: 1477-9226
PB Royal Society of Chemistry
DT Journal
LA English

AB The salts $\text{Li}[\text{Al}(\text{C}_4\text{H}_8\text{N})_4] \cdot n\text{C}_4\text{H}_8\text{NH}$ ($n = 1, 2$; $\text{C}_4\text{H}_8\text{NH} = \text{pyrrolidine}$) were prepd. and characterized in soln. by ^1H -, ^{13}C -, ^7Li - and ^{27}Al -NMR spectroscopy. Their reaction with AlCl_3 (Cl/Li molar ratio = 3) affords the binary amido deriv. $[\text{Al}(\text{C}_4\text{H}_8\text{N})_3]_2$, which, on turn, is reactive towards AlX_3 , yielding $[\text{AlX}_2(\text{C}_4\text{H}_8\text{N})]_2$ ($\text{X} = \text{Cl}, \text{CH}_3$). Binuclear $[\text{AlY}_2(\text{C}_4\text{H}_8\text{N})]_2$ ($\text{Y} = \text{Cl}, \text{CH}_3, \text{C}_4\text{H}_8\text{N}$) react with $[\text{NH}_2\text{Et}_2]\text{Cl}$ affording the amine complexes $\text{AlY}_2\text{Cl}(\text{C}_4\text{H}_8\text{NH})_n$ ($\text{Y} = \text{CH}_3, n = 1$; $\text{Y} = \text{Cl}, n = 1, 2$). Alternatively, the monochloro species $\text{AlMe}_2\text{Cl}(\text{C}_4\text{H}_8\text{NH})$ results from the reaction of $\text{AlMe}_3(\text{C}_4\text{H}_8\text{NH})$ and $\text{AlCl}_3(\text{C}_4\text{H}_8\text{NH})$ (CH_3/Cl molar ratio = 2). The dichloro-Me deriv. $\text{AlMeCl}_2(\text{C}_4\text{H}_8\text{NH})$ was obtained by reacting $\text{AlMe}_3(\text{C}_4\text{H}_8\text{NH})$ and $\text{AlCl}_3(\text{C}_4\text{H}_8\text{NH})$ (Cl/CH_3 molar ratio = 2). The Lewis adducts $\text{AlCl}_3(\text{amine})_n$ (amine = pyrrolidine, $n = 1, 2$; amine = $\text{N}, \text{N}, \text{N}'$ -trimethylpropanediamine, $n = 1$) were isolated when AlCl_3 was contacted with the stoichiometric amt. of the amine. At variance with $\text{N}, \text{N}, \text{N}'$ -trimethylpropanediamine, $\text{N}, \text{N}, \text{N}'$ -trimethylethylenediamine and $\text{N}, \text{N}, \text{N}', \text{N}'$ -tetramethylethylenediamine react with AlCl_3 yielding the salt derivs. $[\text{AlCl}_2(\text{amine})_2][\text{AlCl}_4]$. The dynamic processes of the coordinated amine ligands of $\text{AlCl}_3(\text{amine})_n$ (amine = pyrrolidine, $n = 1, 2$; amine = $\text{N}, \text{N}, \text{N}'$ -trimethylpropanediamine, $n = 1$) and $[\text{AlCl}_2(\text{amine})_2][\text{AlCl}_4]$ (amine = $\text{N}, \text{N}, \text{N}', \text{N}'$ -tetramethylethylenediamine) were studied in soln. by NMR spectroscopy.

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:607984 CAPLUS

DN 127:277813

TI Selective reduction by lithium bis- or tris(dialkylamino)aluminum hydrides. VIII. Reaction of lithium tripiperidinoaluminum hydride in tetrahydrofuran with selective organic compounds containing representative functional groups

AU Cha, Jin Soon; Lee, Jae Cheol; Ju, Young Chul

CS Department of Chemistry, Yeungnam University, Kyongsan, 712-749, S. Korea

SO Bulletin of the Korean Chemical Society (1997), 18(8), 890-895

CODEN: BKCSDE; ISSN: 0253-2964

PB Korean Chemical Society

DT Journal

LA English

AB The approx. rates and stoichiometry of the reaction of excess lithium tripiperidinoaluminum hydride (LTPDA), an alicyclic aminoaluminum hydride, with org. compds. contg. representative functional groups under standardized conditions (THF, 25.degree.) were examd. in order to define the reducing characteristics of the reagent for selective redns. The reducing ability of LTPDA was also compared with those of the parent lithium aluminum hydride (LAH) and lithium tris(diethylamino)aluminum hydride (LTDEA), a representative aliph. aminoaluminum hydride. In general, the reactivity of LTPDA toward org. functionalities is weaker than LTDEA and much weaker than LAH. LTPDA shows unique reducing characteristics. Thus, benzyl alc., phenol and thiols evolve a quant. amt. of hydrogen rapidly. The rate of hydrogen evolution of primary, secondary and tertiary alcs. is distinctive. LTPDA reduces aldehydes, ketones, esters, acid chlorides and epoxides readily to the corresponding alcs. Quinones, such as p-benzoquinone and anthraquinone, are reduced to the corresponding diols without hydrogen evolution. Tertiary amides and nitriles are also reduced readily to the corresponding amines. The reagent reduces nitro compds. and azobenzene to the amine stages. Disulfides are reduced to thiols and sulfoxides and sulfones are converted to sulfides. Addnl., the reagent appears to be a good partial reducing agent to convert primary carboxamides into the corresponding aldehydes.

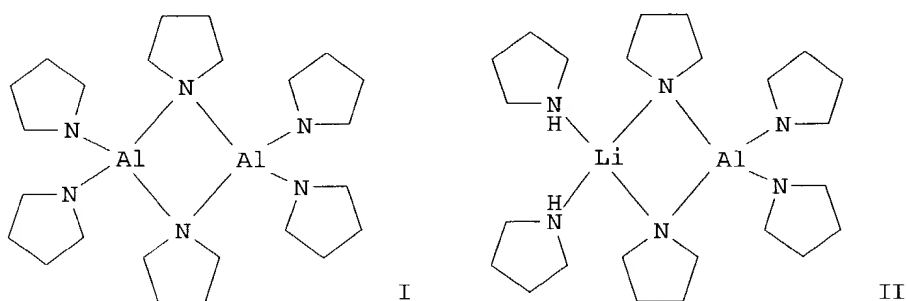
RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:60715 CAPLUS

DN 124:248645

TI Preparation and structures of some new pyrrolidinido- and piperidinido
 alanes and aluminates
 AU Andrianarison, Mbolatiana M.; Ellerby, Miles C.; Gorrell, Ian B.;
 Hitchcock, Peter B.; Smith, J. David; Stanley, David R.
 CS Sch. Chem. Mol. Sci., Univ. Sussex, Brighton, BN1 9QJ, UK
 SO Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry
 (1996), (2), 211-17
 CODEN: JCOTBI; ISSN: 0300-9246
 PB Royal Society of Chemistry
 DT Journal
 LA English
 GI



AB Alane and lithium tetrahydroaluminate each reacted with an excess of
 pyrrolidine or piperidine in THF to give the new dinuclear compds. $(AlL_3)_2$
 $[L = \text{pyrrolidino, piperidino}]$ and $L'_2Li(\mu-L)_2AlL_2$ $[L = \text{pyrrolidino, } L' =$
 $\text{THF or pyrrolidine; } L = \text{piperidino, } L' = \text{THF}]$. The compds. were
 characterized by elemental anal., multinuclear NMR spectroscopy, mass
 spectrometry and x-ray crystallog. In $(AlL_3)_2$ $[L = \text{pyrrolidino}]$ (I) which
 contains an Al_2N_2 ring, av. distances are $Al-N(\text{terminal})$ 1.797(2) and
 $Al-N(\text{bridging})$ 1.963(2) Å. Exocyclic $N-Al-N$ angles are in the range
 112.6-114.4°. The endocyclic $N-Al-N$ angle is 86.69(9)°. and
 $Al-N-Al$ is 93.31(9)°. The sums of the angles at the terminal
 nitrogens are close to 360°. In $L'_2Li(\mu-L)_2AlL_2$ $[L =$
 $\text{pyrrolidino, } L' = \text{pyrrolidine}]$ (II), which contains an LiN_2Al ring,
 distances are $Al-N(\text{terminal})$ 1.824(8), $Al-N(\text{bridging})$ 1.880(7),
 $Li-N(\text{terminal})$ 2.035(20) and $Li-N(\text{bridging})$ 2.149(20) Å. The sums of
 the angles at terminal nitrogens are 349.1 and 355.4°. Ring angles
 are $N-Al-N$ 100.0(3), $Al-N-Li$ 82.0(4) and $N-Li-N$ 84.2(5)°. In
 $L'_2Li(\mu-L)_2AlL_2$ $[L = \text{piperidino, } L' = \text{THF}]$ av. distances are
 $Al-N(\text{terminal})$ 1.828(3), $Al-N(\text{bridging})$ 1.895(3), $Li-O$ 1.987(6) Å. and
 $Li-N(\text{bridging})$ 2.135(6) Å. The sums of the angles at terminal
 nitrogens are 358.1 and 357.4°. Ring angles are $N-Al-N$ 100.69(13),
 $Al-N-Li$ 84.0(2) and $N-Li-N$ 86.2(2)°. Exchange between bridging and
 terminal amido groups is slow on the NMR time-scale at 250 MHz in $(AlL_3)_2$
 but fast in $L'_2Li(\mu-L)_2AlL_2$. Sep. signals for axial and equatorial
 protons are obsd. from cooled samples of $(AlL_3)_2$ $[L = \text{piperidino}]$ and
 $L'_2Li(\mu-L)_2AlL_2$ $[L = \text{piperidino, } L' = \text{THF}]$.

L12 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1995:188673 CAPLUS
 DN 122:104956
 TI Transformation of primary carboxamides to aldehydes by sodium
 tris(dialkylamino)aluminum hydrides
 AU Cha, Jin Soon; Kim, Jong Mi; Jeoung, Min Kyoo
 CS Dep. Chem., Yeungnam Univ., Kyongsan, 712-749, S. Korea
 SO Bulletin of the Korean Chemical Society (1994), 15(9), 708-10
 CODEN: BKCSDE; ISSN: 0253-2964
 PB Korean Chemical Society

DT Journal
 LA English
 OS CASREACT 122:104956
 AB Na(R₂N)AlH (R = Et, Bu, piperidino) mediated redn. of carboxamides to aldehydes in THF is described. Thus, redn. of benzamide with Na(Et₂N)AlH in THF at 25.degree. gave 95% benzaldehyde.

L12 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1993:224272 CAPLUS
 DN 118:224272
 TI Preparation of lithium (dialkylamido)aluminum hydrides, a new class of reducing agents
 AU Cha, Jin Soon; Lee, Jae Cheol; Kim, Jong Mi; Jeong, Seung Won; Park, Ki Suk; Lee, Sung Eun; Lee, Heung See
 CS Dep. Chem., Yeungnam Univ., Kyongsan, 712-749, S. Korea
 SO Bulletin of the Korean Chemical Society (1992), 13(6), 581-4
 CODEN: BKCSDE; ISSN: 0253-2964

DT Journal
 LA English
 AB The reaction of LiAlH₄ with dialkylamines (R₂NH) provides Li(R₂NnAlH_{4-n}) (n = 2, 3), depending upon the steric bulk of the alkyl groups of the dialkylamine. In cases involving a less hindered dialkylamine such as Et₂NH, Bu₂NH, di-n-hexylamine, pyrrolidine, piperidine, morpholine, and N-methylpiperazine, the corresponding trisubstituted derivs. are readily produced at 25.degree.. In cases involving a more hindered dialkylamine such as (Me₂CH)₂NH, dicyclohexylamine, and Ph₂NH, the reaction at 50.degree. affords the corresponding disubstituted derivs. cleanly. In the case of a moderately hindered dialkylamine such as diisobutylamine, a disubstituted deriv. is produced exclusively at 25.degree., and a trisubstituted one under reflux. These dialkylamidoaluminum hydrides examd. are stable to disproportionation.

L12 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1993:146936 CAPLUS
 DN 118:146936
 TI Transformation of carboxylic acids and their derivatives into aldehydes by lithium tris(dialkylamino)aluminum hydrides
 AU Cha, Jin Soon
 CS Dep. Chem., Yeungnam Univ., Kyongsan, 712-749, S. Korea
 SO Bulletin of the Korean Chemical Society (1992), 13(6), 670-6
 CODEN: BKCSDE; ISSN: 0253-2964

DT Journal
 LA English
 AB A systematic study of the partial redn. of carboxylic acids and their derivs. to the corresponding aldehydes with lithium tris(dialkylamino)aluminum hydrides under practical conditions has been carried out. The diethylamino-substituted deriv. of lithium aluminum hydride, lithium tris(diethylamino)aluminum hydride (LTDEA), shows quite general applicability in the conversion of carboxylic acids, carboxylic esters, and primary carboxamides to the corresponding aldehydes. Lithium tripiperidinoaluminum hydride (LTPDA) also appears to be a reagent of choice for such partial transformation of primary carboxamides. In addn., both LTDEA and LTPDA reduce tertiary carboxamides to aldehydes in high yields. Finally, lithium tris(dihexylamino)aluminum hydride (LTDHA) is capable of achieving the chemoselective redn. of arom. nitriles to aldehydes in the presence of aliph. nitriles under practical conditions.

L12 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1992:128286 CAPLUS
 DN 116:128286
 TI Selective reduction by lithium bis- or tris(dialkylamino)aluminum hydrides. IV. Transformation of primary carboxamides to aldehydes by lithium tripiperidinoaluminum hydride
 AU Cha, Jin Soon; Lee, Jae Cheol; Lee, Heung Soo; Lee, Sung Eun

CS Dep. Chem., Yeungnam Univ., Kyongsan, 712-749, S. Korea
 SO Bulletin of the Korean Chemical Society (1991), 12(6), 598
 CODEN: BKCSDE; ISSN: 0253-2964
 DT Journal
 LA English
 OS CASREACT 116:128286
 AB Primary carboxamides are reduced by lithium tripiperidinoaluminum hydride, readily prepd. from LiAlH₄ and 3 equiv of piperidine; in THF to yield aldehydes. E.g., benzamide in THF is added to a soln. of lithium tripiperidinoaluminum to give a 92% yield of benzaldehyde.

L12 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1989:134677 CAPLUS
 DN 110:134677
 TI Reactions of secondary amines with lithium tetrahydridoaluminate
 AU Linti, Gerald; Noeth, Heinrich; Rahm, Peter
 CS Inst. Anorg. Chem., Ludwig-Maximilians-Univ., Munich, D-8000/2, Fed. Rep. Ger.
 SO Zeitschrift fuer Naturforschung, B: Chemical Sciences (1988), 43(9), 1101-12
 CODEN: ZNBSEN; ISSN: 0932-0776
 DT Journal
 LA German
 OS CASREACT 110:134677
 AB Reactions of Et₂NH, (Me₂CH)₂NH, and 2,2,6,6-tetramethylpiperidine with LiAlH₄ in various ethers have been studied. Only two well-defined products result from Et₂NH, namely LiAlH(NEt₂)₃ and LiAl(NEt₂)₄. If molar ratios of Et₂NH:LiAlH₄ < 3:1 are employed all compds. of the series LiAlH₄-n(NEt₂)_n (I, n = 0, 1, 2, 3) are present in solns. of THF and diglyme. In Et₂O insol. materials consisting predominantly of I and, presumably, small quantities of Li₃AlH₆ are also formed. At ambient temp. (Me₂CH)₂NH reacts slowly with LiAlH₄, and LiAlH₂[N(CHMe₂)₂]₂ can be isolated as a well-defined substitution product. 2,2,6,6-Tetramethylpiperidine (R = H) replaces only a single hydride from LiAlH₄ with formation of LiAlH₃R. The structure of LiAlH(NEt₂)₃ has been detd. by x-ray anal. The compd. contains chains of AlHN₃ and LiHN₃ tetrahedra linked through common edges.

L12 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1971:76818 CAPLUS
 DN 74:76818
 TI Poly(methyleneglutaronitrile)
 IN Jo, Yasushi; Kurihara, Seiki
 PA Mitsubishi Rayon Co., Ltd.
 SO Jpn. Tokkyo Koho, 5 pp.
 CODEN: JAXXAD
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 45038548	B4	19701205	JP	19680622
GI	For diagram(s), see printed CA Issue.				
AB	White polymers of methyleneglutaronitrile (I) or copolymers of I and acrylonitrile, useful for prepg. fibers or films, are prepd. by using organometal catalysts, such as Li ethyltripiperidinoaluminate (II), Li (isopropylthio)triethylaluminate, or Li pyrrolidinotri-ethylaluminate. Thus, 20 ml I was added dropwise at -50.degree. to 60 ml HCONMe ₂ , toluene contg. 6 ml II added, and the mixt. polymd. for 2.5 hr to give white poly(methyleneglutaronitrile) in 65% yield (reduced viscosity 0.78 at 30.degree. in 0.1% HCONMe ₂ soln.).				

L12 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1971:54391 CAPLUS

DN 74:54391
TI Methyleneglutaronitrile polymerization
IN Jo, Yasushi; Kurihara, Seiki
PA Mitsubishi Rayon Co., Ltd.
SO Jpn. Tokkyo Koho, 5 pp.
CODEN: JAXXAD
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 45035555	B4	19701113	JP	19670804
AB	Org. metal compds. such as EtMgAlEt ₄ (I), Mg(AlEt ₄) ₂ , Mg bis-[(diethyl)(piperidino)aluminat], etc. are used as catalysts to give methyleneglutaronitrile (II) polymers or copolymers of II useful for moldings, paints, and fibers. For example, 60 ml DMF is mixed with a toluene soln. contg. 6 mmoles I, 20 ml II added dropwise at -50.degree., and the mixt. polymd. 3 hr to give 96% poly(methyleneglutaronitrile).				

L12 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1965:431768 CAPLUS

DN 63:31768

OREF 63:5665c-e

TI Preparation of complex aluminum acetylides from complex amides of aluminum and .alpha.-acetylenes

AU Zakharkin, L. I.; Sorokina, L. P.; Ivanov, L. L.

CS Inst. Heteroorg. Compds., Moscow

SO Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1965), (1), 180-2

CODEN: IASKA6; ISSN: 0002-3353

DT Journal

LA Russian

AB To 0.8064 g. NaAlH₄ in tetrahydrofuran (THF) was added at -20.degree. 16 ml. Me₂NH, and the mixt. warmed to room temp. to give H; after concn. in vacuo the residue was dild. with hexane and gave 80% NaAl(NMe₂)₄, does not m. 250.degree.. Similar reaction with piperidine gave 85% NaAl(NC₅H₁₀)₄, decompd. 241-2.5.degree., but this required refluxing in THF .apprx.1 hr. to complete. Et₂NH similarly gave 88% NaAl(NEt₂)₄, m. 188-91.degree.. Reaction of LiAlH₄ and Me₂NH at -20.degree. in THF followed by warming to room temp. and heating the crude product with BuC.tplbond.CH in THF 2 hrs., followed by similar heating with BzH 2 hrs. gave after an aq. treatment 70% 1-phenyl-2-heptyn-1-ol, b1 108-10.degree., n_D20 1.5280. Similarly, NaAlH₄, Me₂NH, PhC.tplbond.CH, and BzH gave 70% 1,3-diphenyl-2-propyn-1-ol, b2 173-4.degree., 1.6170; NaAlH₄, piperidine, PhC.tplbond.CH, and BzH gave a 72% yield. LiAlH₄, Et₂NH, PhC.tplbond.CH, and BzH gave a 74% yield. Evidently compds. of general type MAlH₃(C.tplbond.CR), where M = metal, were intermediates in these reactions.

L12 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1963:419689 CAPLUS

DN 59:19689

OREF 59:3513g-h,3514a

TI Lewis acid-base titrations employing megacycle-frequency oscillators. III. Preparation, isolation, and characterization of some adducts predicted from titration curves

AU Hitchcock, Eldon T.; Elving, P. J.

CS Univ. of Michigan, Ann Arbor

SO Analytica Chimica Acta (1963), 28, 417-25

CODEN: ACACAM; ISSN: 0003-2670

DT Journal

LA English

AB cf. CA 59, 28g. White solid insol. adducts of SnCl₄ and 13 O bases (Et₂O (I), Bu₂O (II), tetrahydrofuran (III), p-dioxane (IV), MeOH (V), EtOH (VI), PrOH (VII), iso-PrOH (VIII), BuOH (IX), Me₃COH (X), H₂O (XI), Me₂CO

(XII), or cyclohexanone (XIII)) were prepd. by addn. of an O base to SnCl_4 in n-C₇H₁₆ or C₆H₆ soln., filtered, washed with solvent, air-dried, and characterized by m.p. and analysis. At 25.degree., I-III, V-IX, and XI-XIII form SnCl_4 (base)₂ adducts; IV gives a 1:1 molar ratio adduct; X forms $\text{SnCl}_3[\text{OC}(\text{Me})_3]$. Upon recrystn. from boiling solvent the resp. adducts of V-VII and IX lose a mol. of HCl, forming $\text{SnCl}_3(\text{OR})$. Roll compds. Insol. AlCl_3 -N base adducts were prepd. in MeCN soln. with C₅H₅N, piperidine, and MeCN, forming resp. AlCl_3 .base, $\text{AlCl}_3(\text{base})_3$, and $\text{AlCl}_3(\text{base})_2$ adducts. 20 references.

=>

(FILE 'HOME' ENTERED AT 09:10:37 ON 26 JAN 2004)

FILE 'REGISTRY' ENTERED AT 09:10:51 ON 26 JAN 2004

L1 STRUCTURE UPLOADED

L2 10 S L1

FILE 'CAPLUS' ENTERED AT 09:11:27 ON 26 JAN 2004

L3 11 S L2

FILE 'REGISTRY' ENTERED AT 09:14:32 ON 26 JAN 2004

L4 STRUCTURE UPLOADED

L5 9 S L4

FILE 'CAPLUS' ENTERED AT 09:20:14 ON 26 JAN 2004

L6 6 S L5

FILE 'REGISTRY' ENTERED AT 09:29:16 ON 26 JAN 2004

L7 STRUCTURE UPLOADED

L8 0 S L7

L9 STRUCTURE UPLOADED

L10 0 S L9

L11 14 S L9 FULL

FILE 'CAPLUS' ENTERED AT 09:33:17 ON 26 JAN 2004

L12 12 S L11

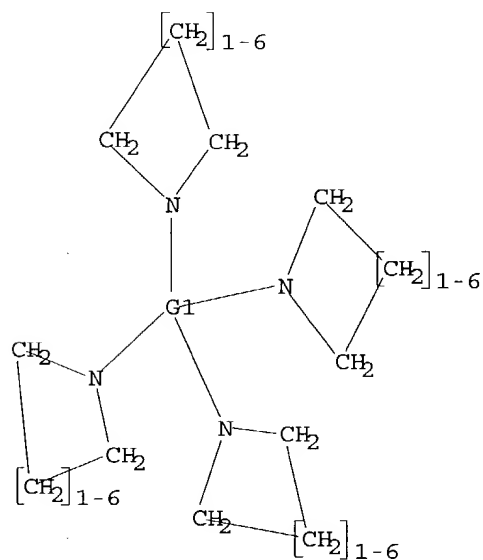
FILE 'REGISTRY' ENTERED AT 09:39:53 ON 26 JAN 2004

L13 STRUCTURE UPLOADED

=> d l13

L13 HAS NO ANSWERS

L13 STR



G1 Hf,Ti,Zr

G2 Cb,Ak,H,CF3,CCl3,CBr3

Structure attributes must be viewed using STN Express query preparation.

=> s l13 full

FULL SEARCH INITIATED 09:40:28 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 731 TO ITERATE

100.0% PROCESSED 731 ITERATIONS
SEARCH TIME: 00.00.01

0 ANSWERS

L14 0 SEA SSS FUL L13

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